No. 9000071

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Minnesota Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen** YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, (THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM,) TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

(†*Waived, except that this waiver shall not apply to breeder seed, foundation seed, labeling requirements, and blending limitations.*)

WHEAT
'Vance'

AMENDED CERTIFICATE

*Original grant September 30, 1991.

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 29th *day of* May *in the year of our Lord one thousand nine hundred and* ninety-two.

Attest:

Kenneth Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan
Secretary of Agriculture

APPROVAL EXPIRES 2-28-88

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
Minnesota Agric. Exp. Stn.	MN 82354	Vance

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*	5. PHONE *(Include area code)*	FOR OFFICIAL USE ONLY
University of Minnesota; 220 Coffey Hall 1420 Eckles Ave., St. Paul, MN 55108	(612) 625-4211	PVPO NUMBER 9000071

6. GENUS AND SPECIES NAME	7. FAMILY NAME *(Botanical)*	FILING DATE / TIME
Triticum aestivum L.	~~Carminae~~ POACEAE	Jan. 22, 1990 ☐ A.M. ☑ P.M.

8. KIND NAME	9. DATE OF DETERMINATION	FEES RECEIVED
Hard red spring wheat	Feb. 15, 1989	AMOUNT FOR FILING: $2,150.00 DATE: Jan. 22 1990 AMOUNT FOR CERTIFICATE: $ 250.00 DATE: September 16, 1991

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*

Minnesota Agric. Exp. Stn.

11. IF INCORPORATED, GIVE STATE OF INCORPORATION	12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

R.H. Busch, Dept. of Agronomy and Plant Genetics, University of Minnesota, St. Paul, MN 55108

PHONE *(Include area code)*: (612)625-1975

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety *(Request form from Plant Variety Protection Office.)*
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)* ☒ Yes *(If "Yes," answer items 16 and 17 below)* ☐ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☒ Yes ☐ No	☒ Foundation ☒ Registered ☒ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ Yes *(If "Yes," give date)*
☒ No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES ?

☐ Yes *(If "Yes," give names of countries and dates)*
☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT	DATE
Gary L. Thompson	1/10/90
SIGNATURE OF APPLICANT	DATE
X C. Eugene Allen	1/8/90

FORM LS-470 (3-86) *Edition of 7-84 obsolete.*

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HARD RED SPRING WHEAT (Triticum aestivum L.)
'VANCE' (PI532150)

13A. Exhibit A
Pedigree MN7595\ND560

The cross of MN7595 (Era/Tob 66//Lovrin 11/4/Era/3/IRN46/Cno 67//Era/Tob 66)/ ND560 (Olaf\Butte) was made in 1979 under the direction of Dr. R. Busch. The F2 and F5 were advanced in their respective nurseries under rust (leaf and stem) conditions. The F3 and F4 were advanced in the greenhouse using single seed descent. Vance originated as a head selection in the F5 nursery, with the F6 increased as a head row in the winter increase nursery in Mexico in the winter of 1981-82. This selection was designated as MN82354 for testing purposes in preliminary trials in 1982 and advanced trials in Minnesota from 1983 through 1988. MN82354 was entered in the Hard Red Spring Wheat Uniform Regional Nursery in 1986 through 1988 as an F11 line. About 250 F11 head rows were grown at Weslaco, Texas in the 1986-87 and rows with similar phenotype were bulked to provide breeders seed for increase at St. Paul, MN in 1987. Further increase was obtained at Brownsville, Texas winter of 1987-88. During the increase, about 0.4% talls, 10 cm or more, were counted in the increase. Vance, grown from this seed lot, still contains about 0.4% talls, which are also about 3 to 4 days earlier to head than Vance. Vance, during testing appeared uniform and stable. About 250 head rows are being grown in Arizona for re-purification of Vance in 1989-90. Future seed supply will originate from this purification, but present seed lots being sold contain the above mentioned tall admixture.

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Hard Red Spring Wheat (Triticum aestivum L.)
'Vance'

13B. Exhibit B-Novelty Statement

Vance is most similar to Prospect and Nordic spring wheat cultivars in appearance. Phenotypically these cultivars have physically large heads (Vance-99 mm; Prospect-101 mm; Nordic-101 mm) which are significantly longer than other semidwarf spring wheat cultivars. Most other semidwarf cultivars in this environment have at least 10 mm shorter main heads (89 mm or less).

Nordic is at least 1 percentage point lower in grain protein than Vance (Table 1) and is moderately susceptible to prevalent leaf rust races. Nordic appears to lack Lr13, adult plant resistance, present in Vance.

Prospect is about 2 days earlier to head than Vance (Table 1), has a less wide flag leaf (Prospect= 17.3 mm; Vance= 18.9 mm), and shorter awns (Prospect= 48 mm; Vance= 65 mm). Among awned cultivars, Prospect's awn length is one of the shortest while Vance's awn length is one of the longest.

These morphological data were collected from 10 plants in two replicates grown at St. Paul, MN in 1990. Least significant differences (5%) associated with the traits mentioned are: 1) head length= 8 mm; 2) flag leaf width= 1 mm; 3) awn length= 10 mm. Twenty location-year trials are involved in measurement of protein differences and days to head with LSD 5%= 0.4% and 1 day, respectively.

Other cultivars do not appear to phenotypically resemble Vance under environments which allow genetic expression and to which it is adapted.

Table 1. Characteristics of hard red spring wheat varieties, 1987-89

Variety	Heading	Height	Lodging	Rust reaction leaf	Rust reaction stem	Seeds	Test weight	Protein	Milling baking quality
	date	inches	score[1]	-- rating[2] --		no./lb	lbs/bu	%[3]	rating
PUBLICLY DEVELOPED VARIETIES									
Butte 86	6-14	27	3	MR	R	13,800	60.3	14.8	Medium-High
Prospect	6-17	26	1	MR	MR	14,300	60.0	14.6	Medium-Low
Minnpro	6-18	25	2	R	R	13,600	57.8	16.4	High-Medium
Stoa	6-18	30	2	MR	R	14,900	59.6	14.7	Medium-High
Wheaton	6-18	23	1	R	R	14,100	57.8	14.1	Low-Medium
Marshall	6-19	24	1	MR	R	15,600	59.3	14.4	Medium-Low
Vance	6-19	25	1	R	R	14,400	58.5	14.8	Medium-High
Shield	6-14	28	2	R	MS	13,500	59.1	14.6	Medium
Guard	6-16	25	1	R	MR	14,800	59.8	14.4	Medium-Low
Amidon	6-18	31	2	R	R	15,200	59.9	15.0	High-Medium
Chris	6-18	30	3	MR	R	16,600	59.4	15.8	Very High
Grandin[4]	6-18	26	1	MS	R	14,400	59.5	15.2	High
Len	6-19	26	1	MS	R	14,800	59.4	15.6	High-Medium
Era	6-21	24	1	MR	R	15,900	59.5	13.9	Low-Medium
PRIVATELY DEVELOPED VARIETIES									
2385	6-15	27	1	R	MS	14,100	59.2	15.2	Medium
2375[4]	6-17	28	2	MR	R	13,800	60.4	15.6	Medium
2369	6-17	25	1	MS	MR	13,600	59.8	15.0	Low-Medium
Celtic	6-18	27	1	R	R	13,700	59.2	15.0	Medium
Fjeld[4]	6-18	25	1	MS	R	14,400	58.9	14.2	Low-Medium
Telemark	6-18	23	1	R	R	14,700	58.1	15.2	High-Medium
Leif	6-18	27	2	R	R	14,800	59.6	15.4	Medium
A99 AR	6-19	30	2	MS	R	11,900	54.6	15.2	Low
Nordic	6-19	26	1	MS	R	12,700	60.4	13.6	Low
Norseman	6-19	23	1	R	R,S	13,900	58.2	15.1	Medium-Low
Tammy	6-19	26	2	MS	S	12,900	58.9	15.0	Medium-Low

[1]1 = erect, 9 = flat; [2]Reaction to prevalent races: R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible; [3]12 percent moisture; [4]2 years data.

FORM APPROVED: OMB NO. 0581-0055

EXHIBIT C
(Wheat)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY

WHEAT (*TRITICUM SPP.*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Minnesota Agricultural Experiment Station

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)
University of Minnesota; 220 Coffey Hall
1420 Eckles Ave., St. Paul, MN 55108

FOR OFFICIAL USE ONLY

PVPO NUMBER
9000071

VARIETY NAME OR TEMPORARY DESIGNATION
Vance (MN82354)

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. KIND:

[1] 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:

[1] 1 = SPRING 2 = WINTER 3 = OTHER (*Specify*) _____

[2] 1 = SOFT 2 = HARD 3 = OTHER (*Specify*) _____

[2] 1 = WHITE 2 = RED 3 = OTHER (*Specify*) _____

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

[5][8] FIRST FLOWERING

[6][4] LAST FLOWERING

4. MATURITY (50% Flowering):

[ ][ ] NO. OF DAYS *EARLIER* THAN .....

[0][1] NO. OF DAYS *LATER* THAN .....

[ ] [3] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS

5. PLANT HEIGHT (*From soil level to top of head*):

[0][6][7] CM. HIGH

[ ][ ] CM. TALLER THAN .....

[1][3] CM. SHORTER THAN .....

[ ] [3] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS

6. PLANT COLOR AT BOOTING (*See reverse*):

[2] 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHER COLOR:

[1] 1 = YELLOW 2 = PURPLE

8. STEM:

[1] Anthocyanin: 1 = ABSENT 2 = PRESENT

[1] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT

[0][4] NO. OF NODES (*Originating from node above ground*)

[2] Waxy bloom: 1 = ABSENT 2 = PRESENT

[1] Internodes: 1 = HOLLOW 2 = SOLID

[1][8] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:

[1] Anthocyanin: 1 = ABSENT 2 = PRESENT

[2] Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:

[2] Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER (*Specify*): _____

[1] Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT

[1][2] MM. LEAF WIDTH (*First leaf below flag leaf*)

[ ] Flag leaf: 1 = NOT TWISTED 2 = TWISTED

[2] Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT

[2][7] CM. LEAF LENGTH (*First leaf below flag leaf*):

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11. HEAD:

[2] Density: 1 = LAX 2 = DENSE

[1] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) _____

[4] Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

[1] Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER (Specify): _____

[0][9] CM. LENGTH

[1][3] MM. WIDTH

12. GLUMES AT MATURITY:

[3] Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.)

[3] Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

[5] Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE

[3] Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

[1] 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

[1] 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

[2] 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

[1] Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

[1] Cheek: 1 = ROUNDED 2 = ANGULAR

[2] Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

[1] Brush: 1 = NOT COLLARED 2 = COLLARED

[ ] Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

[3] Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____

[0][6] MM. LENGTH

[0][3] MM. WIDTH

[3][4] GM. PER 1000 SEEDS

17. SEED CREASE:

[1] Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

2 [1] Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

3/29/90

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[2] STEM RUST (Races) all Prevalent Races

[2] LEAF RUST (Races) Lr13, Lr34 ++

[ ] STRIPE RUST (Races) _____

[2] LOOSE SMUT

[ ] POWDERY MILDEW

[ ] BUNT

[ ] OTHER (Specify) _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SAWFLY

[0] APHID (Bydv.)

[0] GREEN BUG

[0] CEREAL LEAF BEETLE

[ ] OTHER (Specify) _____

HESSIAN FLY RACES: [1] GP [ ] A [ ] B [ ] C [ ] D [ ] E [ ] F [ ] G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Wheaton	Seed size	Len
Leaf size	Marshall	Seed shape	Len
Leaf color	Marshall	Coleoptile elongation	Len
Leaf carriage	Wheaton	Seedling pigmentation	Marshall

RECEIVED USDA AMS JUN 18 1990 Plant Variety Protection Ofc

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

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Hard Red Spring Wheat (Triticum aestivum L.)
'Vance'

13D. Exhibit D. Additional description of 'Vance".

Vance is a very high yielding semidwarf, similar in yield to Marshall, but with a yield and protein advantage in the northern production area of Minnesota which is the major wheat growing area. It has lodging resistance similar to Marshall but is about 4 cm taller with 0.8 lb/bu lower test weight (see Tables 1 & 2 from 1990 edition of Varietal Trials of Farm Crops, Minn. Agric. Exp. Sta., Misc. Report 24). Vance has larger seed, by weight, than Marshall, Era, and Len, but lighter than Wheaton. The spike of Vance is awned, fusiform to oblong, and mid-dense. The glumes are glabrous and white, shoulders are wide and elevated, and beaks are tapering and mid-long. The kernel shape is ovate, mid-size, with rounded cheeks, and the crease is narrow and mid-deep. The brush is mid-size to small and mid-long.

Vance has been highly resistant to all tested races of stem rust in the field nursery tests but in the greenhouse in seedling growth stage isolates QSHS and RKQS produced 23 reaction types. Isolate tests of leaf rust have indicated that Vance possesses Lr13 and Lr34 adult plant leaf rust resistant genes with probably others not well identified.

Table 2. Yields of hard red spring wheat varieties, 1987-89

Variety	Crookston	Stephen	Roseau[1]	Northern average	St. Paul	Morris	Lamberton	Waseca	Southern average	State average
					bu/A					
PUBLICLY DEVELOPED VARIETIES										
Butte 86	43	50	46	46	39	40	29	38	37	40
Prospect	39	51	42	44	39	36	36	41	38	40
Minnpro	41	46	50	45	36	33	32	32	33	37
Stoa	46	53	54	51	38	41	39	42	40	43
Wheaton	42	55	41	47	37	41	38	36	38	41
Marshall	43	50	38	44	34	37	36	34	35	38
Vance	42	51	43	46	38	36	31	34	35	38
Shield	37	38	49	41	42	40	42	42	41	40
Guard	42	49	38	43	40	38	39	34	38	39
Amidon	44	49	42	46	34	36	30	35	34	38
Chris	33	37	36	35	28	32	28	30	29	31
Grandin[2]	41	53	37	44	39	35	32	34	35	38
Len	42	47	40	43	30	32	31	30	31	35
Era	43	52	37	45	33	32	32	33	32	36
PRIVATELY DEVELOPED VARIETIES										
2385	34	42	40	38	36	36	32	32	34	35
2375[2]	42	51	50	48	43	40	39	39	40	43
2369	38	49	42	43	38	36	34	35	36	38
Celtic	43	48	41	44	38	36	33	37	36	39
Fjeld[2]	41	52	37	43	40	39	38	37	39	40
Telemark	40	51	36	43	36	36	34	38	36	38
Leif	43	48	32	42	33	29	30	34	32	35
A99 AR	32	47	43	41	32	34	26	31	31	34
Nordic	44	56	43	48	37	39	38	39	38	42
Norseman	45	49	43	46	36	35	36	34	35	39
Tammy	41	53	46	47	38	31	33	32	33	38
LSD 5%	6	7	7	5	6	6	8	6	3	3

[1] 1987, 1989. [2] 1988-89. Data adjusted to 3-year average.

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Exhibit 13E. STATEMENT OF BASIS OF APPLICANT'S OWNERSHIP

The cross of parents named in Exhibit 13A was conducted under the direction of Dr. R. Busch by the Wheat Genetics and Improvement Project, University of Minnesota, St. Paul MN 55108. Dr. R. Busch is employed by the USDA-ARS and jointly supported by USDA-ARS and the Minnesota Agricultural Experiment Station. Facilities and testing sites used were, in part, those provided to the Wheat Genetics and Improvement project by the Agric. Exp. Station. USDA-ARS provided personnel, some equipment, and supplies, thus providing the basis for a joint release. The crossing, selection, testing and release of Vance was totally under the direction of the joint wheat development program (USDA-ARS and Minn. AES) located at the University of Minnesota.

United States Department of Agriculture

Agricultural Marketing Service

Commodities Scientific Support Division

Plant Variety Protection Office
NAL Building, Rm. 500
10301 Baltimore Blvd.
Beltsville, MD 20705-2351

9000071

PLANT VARIETY PROTECTION OFFICE

Gentlemen:

Subject: Application No. MN 82354
Variety and Kind: 'Vance' hard red spring wheat

As provided in section 83(a) of the Plant Variety Protection Act, 7 U.S.C. 2321, we request that the Certificate on the above variety be issued with a notation on the Certificate that the right to exclude others from selling, offering for sale, reproducing, importing or exporting the variety covered by this Certificate, or using it in producing a hybrid or different variety is waived, except that this waiver shall not apply to breeders seed, foundation seed, labeling requirements, and blending limitations.

It has been agreed that the Certificate should be issued in the name(s) of:

Minnesota Agricultural Experiment Station

5/10/90
(Date)

Paul L. Thompson
(Signature)